MOVING ROADS FORWARD

Niagara Region

CONNECTING MORE PEOPLE TO MORE POSSIBILITIES

Regional Road 81 (King Street) Road Reconstruction between Greenlane and Lincoln Avenue In the Town of Lincoln

Environmental Assessment and Detailed Design

MOVING ROADS FORWARD

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Niagara Region

PUBLIC INFORMATION CENTRE #2

The in person Public Information Centre is being held:

Date:	**September 6, 2023**
Time:	**7 – 9 p.m.**
Location:	**Royal Canadian Legion** **5545 King Street West, Beamsville, Ontario**

The Public Information Centre materials will be posted on the Niagara Region project website on **September 6, 2023**

https://niagararegion.ca/projects/king-st-improvements/default.aspx

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Project Area

Core Project Team

Niagara Region
Project Owner

Melissa Tomascik, C.E.T.
Project Manager

David Lampman, C.E.T.
Sr. Project Manager

Graeme Guthrie, C.E.T.
Associate Director, Transportation Engineering (Acting)

Kerry T. Howe Engineering Limited (KTH)
Lead Consultant

Tyler Pitman
Project Manager

Jeff Jaeger, P.Eng.
President / Lead Engineer

Project Context

- Reconstruction of Regional Road 81 (King St.) from Lincoln to Greenlane
- Improvement of Geometrics and sight lines at Thirty Road Intersection
- Incorporation of Active Transportation Facilities
- Replacement of Town of Lincoln Watermain (Completed Winter 2020)
- Street Lighting Upgrades at Intersections (Delineation Lighting)
- Traffic Signal Installation at Thirty Road

Project Background

Niagara Region initiated a Class Environmental Assessment to evaluate and recommend transportation improvements along King Street (Regional Road 81), from Greenlane to Lincoln Avenue. As part of the study a number of environmental reports were completed.

Initially the project commenced as a Schedule ‘C’ EA due to the significant environmental effects the project may encounter. When the design alternatives being considered were reviewed it was very quickly determined that the option that made the least changes to the existing road width yet still addressed the drainage, safety and road condition was the preferred environmentally and financially feasible solution. This option allowed the proposed road to remain within the existing Regional right-of-way and still be able to accommodate cycling facilities.

Having narrowed the options down to essentially having only one feasible solution, the Region downgraded the Schedule ‘C’ EA to a Schedule ‘B’ EA as this is the more appropriate process for this project.

Background Studies

- Natural Heritage Summary Report by Colville Consulting Inc.
- Environmental Soils Investigation by Wood PLC
- Traffic Operation Analysis Report by Parsons
- Traffic Warrant Analysis by Region
- Stage 1 and Stage 2 Archaeological Assessments by New Directions Archaeology

Environmental Assessment Process

MUNICIPAL CLASS EA - STAGES

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
PROBLEM OR OPPORTUNITY	***ALTERNATE SOLUTIONS***	***ALTERNATIVE DESIGN CONCEPTS FOR PERFERRED SOLUTION***	***ENVIRONMENTAL STUDY REPORT (ESR)***	***IMPLEMENTATION***
Identify Problem Or Opportunity	Identify Alternative Solutions to problem Or Opportunity Select Preferred Solution	Identify Alternative Design Concepts for Preferred Solution Select Preferred Design Finalization of Preferred Design	Complete Environmental Study Report (ESR) Notice of Completion ESR Available For 30 Days Complete Detail Design after any concerns Addressed	Complete Contract Drawings & Tender Documents Proceed to Construction

Environmental Assessment Details

- Project Kick off 2016
- Project conducted under a Schedule ‘C’ Environmental Assessment
- Public Information Center (PIC 1) held on December 20, 2017
- 4 Design Platforms were presented at the first PIC. The design options were :

Environmental Assessment Details Cont'd...

- Design Concept 1 – Do nothing, no construction
- Design Concept 2 – 8m Wide Road Platform - built to the same condition. This option did not make any accommodation for Active Transportation
- Design Concept 3 – 10m Wide Road Platform – This option include the addition of 1.5m wide paved shoulders to accommodate cycling facilities.
- Design Concept 4 – 13m Wide Road Platform – This option included a continuous left turning lane and bicycle lanes

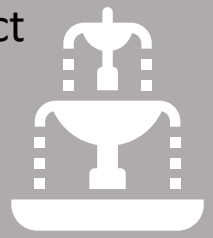
Environmental Assessment Details Cont'd…

Following the first PIC the Pros and Cons for all Alternatives were identified and evaluated as follows:

Design Option Evaluation Criteria

Evaluation criteria developed are shown below. The alternative design options were evaluated against these criteria, from a road design point of view and a traffic design point of view.

Transportation	Natural	Socio-Economic	Costs
• Traffic Demand • Safety • Active Transportation • Transit	• Environmental Impact	• Supports local Growth and Development • Impact to Adjacent Properties • ROW Availability • Utility Impact	• Capital Costs • Maintenance Costs



Evaluation Criteria – Road Design

EVALUATION CRITERIA	DESIGN CONCEPT 1 Do Nothing / No Construction	DESIGN CONCEPT 2 8m Roadway	DESIGN CONCEPT 3 (Revised) 10.6m Roadway with Cycling Facilities	DESIGN CONCEPT 4 13m Roadway with Bike Lane & Turning Lane
TRAFFIC OPERATIONS/ TECHNICAL	THERE ARE NO CYCLING FACILITIES WHICH CAUSES A DANGER FOR CYCLISTS AND PEDRESTRIANS. THERE IS ALSO AN INCREASED RISK OF REAR END COLLISIONS AT INTERSECTIONS	THERE ARE NO CYCLING FACILITIES WHICH CAUSES A DANGER FOR CYCLISTS AND PEDRESTRIANS. THERE IS ALSO AN INCREASED RISK OF REAR END COLLISIONS AT INTERSECTIONS	THE ADDED BUFFER AND PAVED SHOULDERS IMPORVES THE SAFTEY OF CYCLISTS. TURNING LANES AT THE INTERSECTIONS WILL REDUCE THE RISK OF REAR END COLLISIONS.	THE ADDED BIKE LANE IMPROVES THE SAFTEY OF CYCLISTS. THE CONTINOUS TURNING LANE WILL REDUCE THE RISK OF REAREND COLLISIONS THROUGHOUT THE CORRIDOR
SOCIO-ECONOMIC	SINCE THERE ARE NO CHANGES TO THE ROAD THERE IS NO IMPACT ON THE SURROUNDING PROPERTIES	MINOR CONSTRUCTION DISRUPTION FOR ROAD RECONSTRUCTION. FEW IMPACTS TO PROPERTYS OR PROPERTY ACCESS	MINOR IMPACTS TO SURROUNDING PROPERTIES OR PROPERTY ACCESS. THERE WILL BE CONSTRUCTION DISRUPTION	MINIMAL IMPACT TO PROPERTYS THROUGH WIDENING THE ROAD, AND THERE WILL BE CONSRUCTION DISRUPTION
NATURAL ENVIRONMENT	NO IMPACT TO THE ENVIORMENT SINCE THERE IS NO CONSTRUCTION	MINOR IMPACT TO THE SURROUNDING ENVIORMENT DUE TO CONSTRUCTION	THE WIDER ROAD MAY REQUIRE SOME VEGETATION TO BE REMOVED	THE VEGATION WILL HAVE TO BE REMOVED TO ALLOW SPACE FOR THE ROAD TO BE WIDENED
COST	NO CONSTRUCTION HAPPENING SO THERE ARE NO COSTS	MODERATE CAPTIAL COSTS	MODERATE CAPTIAL COSTS	HIGHER CAPTIAL COSTS THEN THE PERVIOUS DESIGN CONCEPTS
EVALUATION SUMMARY	NOT RECOMMENDED	NOT RECOMMENDED	**RECOMMENDED**	NOT RECOMMENDED

Legend:
- Does Not Support Criteria
- Moderately Supports Criteria
- Fully Supports Criteria

Evaluation Criteria – Traffic Design

EVALUATION CRITERIA	DESIGN CONCEPT 1 Do Nothing / No Construction		DESIGN CONCEPT 2 8m Roadway		DESIGN CONCEPT 3 (Revised) 10.6m Roadway with Cycling Facilities		DESIGN CONCEPT 4 13m Roadway with Bike Lane & Turning Lane	
TRAFFIC OPERATIONS/ TECHNICAL	🔴	SIGHTLINE CONCERN WHEN TURNIG LEFT FROM NORTH EAST SIDE OF THIRTY RD AND KING ST. INTERSECTION.	🔴	SIGHTLINE CONCERN WHEN TURNIG LEFT FROM NORTH EAST SIDE OF THIRTY RD AND KING ST. INTERSECTION.	🟢	INTERSECTION GETS REALIGNED TO ELIMINATE SIGHTLINE CONCERN ON THIRTY RD.	🟢	INTERSECTION GETS REALIGNED TO ELIMINATE SIGHTLINE CONCERN ON THIRTY RD.
SOCIO-ECONOMIC	🟢	NO IMPACT TO SURROUNDING PROPERTIES AND NO CONSTRUCTION DISRUPTION	🟢	NO IMPACT TO SURROUNDING PROPERTIES AND NO CONSTRUCTION DISRUPTION	🟢	NO PROPERTY ACQUISITIONS WILL BE REQUIRED, THE SENIORS HOME WILL STILL HAVE USE OF THERE FENCE AND GARDEN AREA THAT IS CURRENTLY LOCATED ON REGIONAL PROPERTY	🔴	SENIORS HOME WILL BE REQUIRED TO MOVE THE EXISTING FENCE BACK TO THE PROPERTY LINE AND THE RAISED GARDEN BEDS WILL BE ELIMINATED
NATURAL ENVIRONMENT	🟢	NO IMPACT TO THE ENVIORMENT SINCE THERE IS NO CONSTRUCTION	🟡	MINIMAL IMPACT TO TREES AND OTHER VEGATATION.	🟡	MINIMAL IMPACT TO TREES AND OTHER VEGATATION.	🔴	GREATOR IMPACTS TO TREES AND THE DRAINAGE COURSE TO THE EAST
COST	🟢	NO COSTS, NO CONSTRUCTION	🟡	MODERATE CONSTRUCTION COSTS	🟡	MODERATE CAPTIAL COSTS	🔴	HIGH CAPTIAL COSTS
EVALUATION SUMMARY	NOT RECOMMENDED		NOT RECOMMENDED		**RECOMMENDED**		NOT RECOMMENDED	

Legend:
- 🔴 Does Not Support Criteria
- 🟡 Moderately Supports Criteria
- 🟢 Fully Supports Criteria

Preferred Design Solution

In 2022 Active Transportation required us to update the design to meet Book 18 – Cycling Facilities. This required us to reduce the lane widths from 3.5m to 3.3m and add a 0.5m buffer between the driving lane and paved shoulder. The new Preferred Solution sits at a 10.6m (Option 3 revised) edge of pavement to edge of pavement design which meets the active transportation requirements with the minimal impact to the surrounding environment.

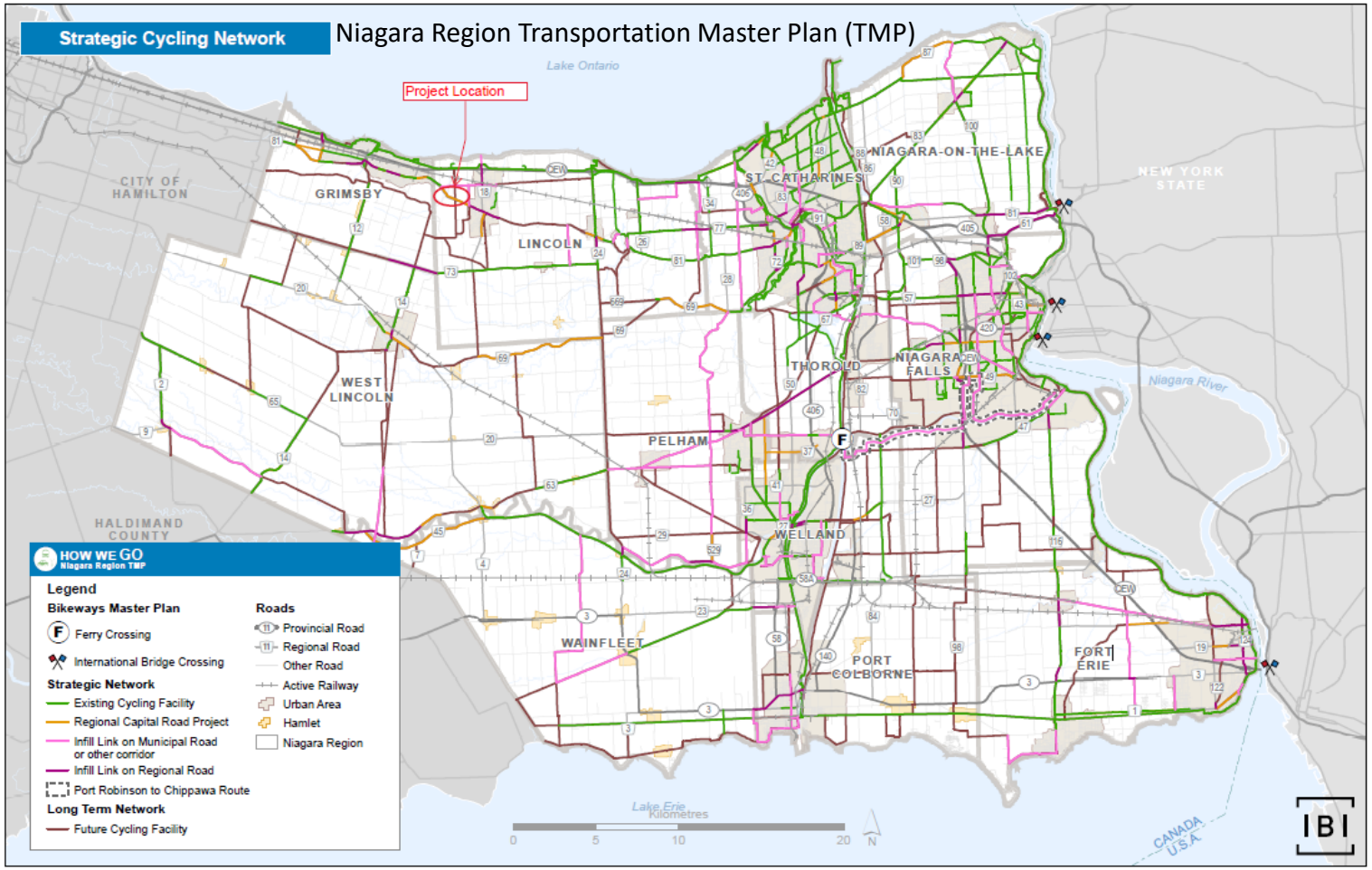
Design Details

- 10.6m Wide Road (3.3m travel lanes) with 0.5m painted buffer and a 1.5m wide paved shoulder – Greenlane to Lincoln Ave to accommodate cycling facilities and disabled vehicles.
- Left Turning Lanes will be installed on Regional Road 81 (King St.) at Thirty Road, and Lincoln Street.
- The Lincoln Street Intersection will be Superelevated to tie into the previous reconstruction works of Lincoln Ave (South of King St).
- Road Crossing Culverts will be replaced where required
- The Town Watermain was replaced in 2020 from Greenlane to Mountainview Road to address the frequent breaks

Design Details Cont'd…

Accommodation for Cycling Facilities:

- While a fully dedicated cycling lane is not being provided, the wider road platform along with a buffer will help to accommodate cyclists who choose to use RR81 (King St)
- Advisory Bike Route Signage will be installed



Illumination and Utility Improvements

Illumination

Roadway **illumination requirements** associated with the project will meet Regional standards at all intersections

Utilities

In order to meet the safety guidelines for clear zones within the corridor, **utilities** (ie Poles, Gas and Bell) will be relocated prior to the commencement of the roadway construction works.

Municipal Service Improvements

Municipal Services

The roadway reconstruction works will result in the following **upgrades to municipal services** within the corridor:

- **Town Watermain** was replaced in 2020 from Greenlane to Mountainview Road to address the frequent breaks
- **Improved roadway drainage** including new curb and gutter in various locations and improvements to existing crossing culverts.
- **Improved roadway safety** site lines improved at Thirty Road and widened road platform for cycling facilities.

Impacts Associated with the Preferred Design

Property Requirements

As a result of the proposed works, property acquisitions will be required; 3 parcels that were not included for past widenings as well as 1 parcel for intersection site line improvements. All lands disturbed by the construction but not acquired by the Niagara Region will be **restored to their current state.**

Roadway Vegetation Impacts

Due to construction requirements, approximately 5 trees will be removed in addition to those identified by the Region's forestry department tree condition assessment survey as requiring removal.

Vegetation may be removed/trimmed at intersections and driveways to improve site distances.

Impacts Associated with the Preferred Design Cont'd…

Roadway Vegetation Impacts Cont'd..

Further tree trimming will be required with the utility relocations.

Where existing trees cannot be avoided, the **Region will replace the trees** in accordance with the Region's tree replanting policy, where possible (2:1).

Traffic Maintenance and Access Restrictions During Construction

Traffic disruption will be minimized as much as possible during construction. It is anticipated that at lease **one lane would remain open at all times**. Access to residential and commercial property will be maintained during construction.

Impacts Associated with the Preferred Design Cont'd…

Noise, Vibration & Dust from Construction Activities

Dust/debris control measures shall be undertaken to control roadway dust. Construction will be **limited to the time periods** allowed by the Town of Lincoln bylaws (0700h to 2300h). All equipment will be properly maintained to **limit noise emissions**. **Vibration** monitoring will be undertaken during construction.

Next Steps

Following this Public Information Centre, the Project Team will:

- **Review comments** submitted at the PIC.
- Meet with member of the public and/or agencies as needed.
- Confirm the **Preferred Design** for the study corridor.
- Complete and submit an **Environmental Study Report** describing the study recommendations and planning process undertaken for **30-day public review**
- Proceed with **detailed design** of the Preferred Design Concept.
- Complete the property acquisition process.
- Complete utility relocations – late 2023
- Initiate **construction in 2024**